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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,721	10/29/2003	Shoji Kanemura	1232-5189	7710
27123	7590	08/05/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			TRAN, LY T	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/697,721

Applicant(s)

KANEMURA, SHOJI

Examiner

Ly T. TRAN

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-6 and 8-11 is/are rejected.
- 7) ☒ Claim(s) 3 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasunari et al. (JP2002059559) in view of Brenner et al (US 2004/0257392).

With respect to claims 1, 9-11, Yasunari discloses an apparatus and a method of an inkjet printing comprising a control means for, when print data is received, simultaneously performing print-output of print data by the print head within printing area of the printing medium and preliminary discharge from the print head without print area of the print medium (Fig.5, Fig.7, [0068]);

With respect to claim 8, Yasunari discloses that the print head discharge ink by thermal energy ([0012])

However, Yasunari fails to teach driving electric power calculation means, determination means and wherein if the calculated driving electric power is greater than the threshold value, the control means reduces electric power supplied to the print head to a value less than the threshold value.

Brenner teaches driving electric power calculation means, determination means and wherein if the calculated driving electric power is greater than the threshold value, the control means reduces electric power supplied to the print head to a value less than the threshold value (Fig.4,5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to calculation the electric power, determination means and wherein if the calculated driving electric power is greater than the threshold value, the control means reduces electric power supplied to the print head to a value less than the threshold value as taught by Brenner. The motivation of doing so is to have the power supply is likely to be smaller, and thus less expensive, than is needed in most inkjet-printing situation.

2. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasunari et al. (JP2002059559) in view of Brenner et al (US 2004/0257392), further in view of Suemune (USPN 5,942,043)

The combination of Yasunari and Brenner fails to teach the preliminary discharge pattern selection means for selecting a predetermined preliminary discharge pattern and a value of electric power necessary for preliminary discharge is set for preliminary discharge pattern and stored in the preliminary discharge pattern table.

Suemune teaches the preliminary discharge pattern selection means for selecting a predetermined preliminary discharge pattern and a value of electric power

necessary for preliminary discharge is set for preliminary discharge pattern and stored in the preliminary discharge pattern table (Fig.5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made as modify to have the preliminary discharge pattern selection means for selecting a predetermined preliminary discharge pattern and a value of electric power necessary for preliminary discharge is set for preliminary discharge pattern and stored in the preliminary discharge pattern table as taught by Suemune. The motivation of doing so is to start the printing operation as soon as possible after the print initiation conditions are met.

3. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasunari et al. (JP2002059559) in view of Brenner et al (US 2004/0257392), further in view of Kawasaki et al (USPN 6,817,694).

The combination of Yasunari and Brenner fails to teach changing a driving frequency to the print head and selecting a predetermined driving frequency from previous set driving frequency table.

Kawasaki teaches teach to change a driving frequency to the print head and select a predetermined driving frequency from previous set driving frequency table (Column 10: table 2, 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made as modify to teach to change a driving frequency to the print head and select a predetermined driving frequency from previous set driving frequency table

as taught by Kawassaki. The motivation of doing so is to enable decrease of the waste of the ink without image formation and prevention of defective ink ejection in image formation.

#### ***Allowable Subject Matter***

4. Claims 3 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 7 is allowable over prior art of record because at least prior art of record does not disclose or teach control means controls the driving frequency selection means to select a driving frequency to obtain driving electric power less than the threshold value from the driving frequency table.

Claim 3 is allowable over prior art of record because at least prior art of record does not disclose or teach the threshold value is a value obtained by subtracting electric power necessary for the preliminary discharge from a maximum value of electric power which can be supplied from a power source to the print head.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T. TRAN whose telephone number is 571-272-2155. The examiner can normally be reached on M-F (7:30am-5pm).

Art Unit: 2853

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LT

August 2, 2005



**Stephen D. Meier**  
Primary Examiner